

REMARKS

The Applicant traverses all of the objections and rejections of the Office Action. Applicant has amended claims 9 and 21 herein. The amendments to the claims do not add new matter. Applicant appreciates the Examiner's review of the above-identified patent application and respectfully requests reconsideration and allowance in view of the above amendments and following remarks.

I. Response to Claim Objections and Rejection -35 USC § 112

Applicant has amended claims 9 and 21 to correctly depend on claims 1 and 15, respectively. Applicant appreciates the Examiner thorough review and correct consideration in previous examination.

II. Response to Claim Rejections Based on Obviousness

In the Office Action, claims 1-29 have been preliminarily rejected as obvious under 35 U.S.C. § 103. Specifically claims 1, 15, and 27 has been rejected under 35 U.S.C. § 103 by U.S. Patent 6,337,767 to Takeuchi et al. (hereinafter, "Takeuchi") in view of U.S. Patent 4,806,776 to Kley (hereinafter, "Kley") in view of U.S. Patent 3,710,128 to Kubisiak et al. (hereinafter, "Kubisiak").

A. Claim 1

Applicant urges that the Examination lacks the evidence, facts, or findings sufficient to establish a *prima face* case of obviousness. To establish a *prima face* basis for obviousness, the Examiner bears the burden to show the factual basis of the rejection. In re Warner, 379 F.2d 1011, 389 U.S. 1057 (1968). Such basis must be both factually sufficient, and reasonable.

The Examiner bears the burden to show specific motivation to combine references, and to support the *motivation* for each combination, as well as the substance behind each rejection, with factual references. However, the Examiner ignores the great many factors that tend to demonstrate that the references are *not* combinable, and also ignores the lack of indicia that would lead one to combine the references to obtain the invention. These reasons, expounded upon below, create a compelling and legally sufficient basis to demonstrate that not even a *prima face* basis for a rejection exists, and that the Applicant's claims are entitled to allowance without further rejection.

There must be a basis in the art for combining or modifying references. MPEP§ 2143.01 provides:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

The Federal Circuit has several times expressly addressed the issue of how to evaluate an alleged case of *prima facie* obviousness to determine whether it has been properly made. Thus, *In re Geiger*, *supra*, stated, in holding that the PTO "failed to establish a *prima facie* case of obviousness":

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Monteffiore Hospital*, 732 F.2d 1572, 221 USPQ 929,933 (Fed. Cir. 1984).

The Federal Circuit's assessment in *Geiger*, quoted above, is directed to the sufficiency of the teachings of a particular reference to justify a conclusion that any proposed modification or combination of references is what one of ordinary skill in the art would have found obvious to do at the time the invention was made.

The CCPA expressly held that there must be some logical reason apparent from the evidence of record that would justify a combination or modification of references. *In re Regel*, 188USPQ 132 (CCPA 1975). In determining whether one of ordinary skill in the art would find it obvious to modify or combine references, the teachings of the reference taken with the knowledge that a worker in the art already possesses constitute the scope and content of the prior art that is referred to in the *Graham* decision. Thus, the question raised under § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art. Accordingly, even if all elements of a claim are disclosed in various prior art references, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill would have been prompted to combine the teachings of the references to arrive at the claimed invention. *In re Regel*, *supra*. Where no reasonable intrinsic or extrinsic justification exists for the proposed combination or modification, *prima facie* obviousness will not have been established, and no such justifications exist between Takeuchi and Kley, thus, no

prima face case of obviousness has been established. These principles are applied in more detail, below.

The Federal Circuit has also repeatedly warned against using the applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. See, e.g., *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). The black letter law statements by Judge Linn in *In re Kotzab*, 217 F.3d 1365, 55 USPQ2d 1313 (Fed. Cir. 2000) address this subject, viz:

a) Hindsight

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect taught is used against the teacher." (*Id.* At 1369, 55 USPQ2d at 1316) (citations omitted).

b) Need for Motivation

Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. See *id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. (*Id.* at 1369, 55 USPQ2d at 1316) (citations omitted).

c) Particular Findings Required

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be

solved, as a whole would have suggested to those of ordinary skill in the art. Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. Broad conclusory statements standing alone are not "evidence." (*Id.* at 1370, 55 USPQ2d 1317) (citations omitted).

The Examiner alleges that the combination of Takeuchi with Kley is proper because in Kley "the object observation is under different light sources of different frequencies." Presumably Kley would want to use Takeuchi to observe at ultraviolet frequencies. However, this is clearly erroneous. Kley is directed to the visible spectrum. Kley discloses that different colors of illumination may be used, however, this teaching is limited to different illumination sources within the visible spectrum. Kley provides no suggestion of using ultraviolet light.

Kley only provides specific examples of using select visible colors to contrast the visible colors of an object's surface. See 42, lines 57-70 of Kley. In addition, the Office Action has not refuted that Kley discloses a bandpass filter for ultraviolet light placed in front of a camera to remove ultraviolet light for cameras sensitive to ultraviolet light in order to prevent unwanted noise. Kley actually teaches away from the Office

Action's assertion. An individual skilled in the art at the time of the invention would not be motivated by the teaching of Takeuchi due to Kley suggesting a desire to remove unwanted ultraviolet light. The Examination simply fabricates out of whole cloth the idea of illuminating with ultraviolet light (*Takeuchi*) combined with using visible light to identify object edges (*Kley*), even though neither reference suggests nor identifies such a problem. This is classic hindsight reasoning of exactly the type warned of above by Judge Linn.

Applicant is not merely claiming the ability to observe an object under visible light and ultraviolet light. Applicant claims extracting information about the determination of an edge of a target based on processing a visible light image and an ultraviolet light image, as recited in claim 1. Takeuchi does not relate to edge detection of an object and provides no teaching or suggestion of use for edge detections. While Kley does relate to dimensional determination of an object, Kley provides no suggestion of using ultraviolet light. In fact Kley teaches away from using ultraviolet light. Neither Takeuchi nor Kley provide a motivation to combine in the manner asserted in the office action.

While arguable using different light sources at different frequencies to observe an object provides a wide-ranging field of art that relate Takeuchi and Kley." It is not "the similarities between references" that is the standard for combining references--the standard is that there must be motivation to combine the references. Here, there is none. There is not a single cite or reference (no finding) to a factor that could create a motivation to combine the references. The mere fact that Kley teaches using different colors of light within the visible spectrum does not suggest that all frequency of electromagnetic energy could be used. Accordingly, there is no *prima face* basis to find a motivation to combine the references. Additionally, the rationale for combining the references is quite thin, is not based on a motivation to combine the references, and seems to in all cases be fabricated in hindsight solely for the purposes of combining the references. Accordingly, the combination of *Takeuchi* and *Kley* is not proper, and any rejections based on this combination should be withdrawn, and such withdrawal is requested.

Clearly the references are not combinable, and any rejections based on their combination under 35 USC 103 should be withdrawn, the claims should be allowed, and their allowance is hereby requested. Neither U.S. Patent 3,710,128 to Kubisiak et al., U.S. Patent 5,914,784 to Ausschnitt et al., or other references cited in the office action cure the above deficiencies. Therefore, the rejection of claim 1 should be withdrawn and claim 1 allowed.

B. Claims 15 and 27-29

As previously discussed with regard to claim 1, Takeuchi in view of Kley in view of Kubisiak does not disclose, teach, or suggest **a first visible light spectrum illumination source** and **"a second ultraviolet illumination source"** for providing images to determine an edge of at least a portion of the target. Neither U.S. Patent 5,914,784 to Ausschnitt et al. or other references cited in the office action cure the above deficiencies. Therefore, the rejection of claims 15 and 27-29 should be withdrawn and claims 15 and 27-29 allowed.

C. Claims 2-4, 6-7, 9-14, 16, 18-19, and 21-26

The Applicant respectfully submits that since claims 2-4, 6-7, 9-14, 16, 18-19, and 21-26 depend on independent claims 1 and 15, respectively; claims 2-4, 6-7, 9-14, 16, 18-19, and 21-26 contain all limitations of independent claims 1 and 15, respectively. Since independent claims 1 and 15 should be allowed, as argued herein, pending dependent claims 2-4, 6-7, 9-14, 16, 18-19, and 21-26 should be allowed as a matter of law for at least this reason. In re Fine, 5 U.S.P.Q.2d 1596, 1608 (Fed. Cir. 1988).

III. Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

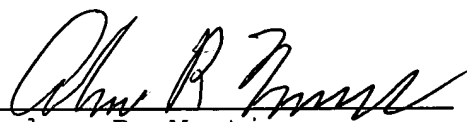
CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and rejections have been traversed, rendered moot

and/or accommodated, and that presently pending claims 1-4, 6-7, 9-16, 18-19, and 21-29 are in condition for allowance. Favorable reconsideration and allowance of the present application and the presently pending claims are hereby courteously requested. The examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

Respectfully submitted,

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